

# **Connected Leicester Hub and Spoke Plan**

## **Transforming Cities Fund Full Business Case**



### **Smart Integrated Ticketing**

**April 2021**

## Background

During the period 2018 to 2019 Leicester City Council, supported by Leicestershire County Council, took part in a competitive process to bid for Transforming Cities Funds to improve transport in Central Leicestershire.

In 2019 DfT awarded £7.8M of tranche 1 funding to deliver three walking and cycling schemes and a scheme to deliver electric buses on the Birstall Park and Ride service. Oversight and assurance of these schemes was undertaken by the DfT, and delivery is underway since 2020/21.

In 2020 an award of £33M was made to our local TCF board who are responsible for Governance including providing the oversight and assessing the final scheme packages through a Local Assurance Framework.

This award was made based on a programme Strategic Outline Business Case (SOBC)<sup>1</sup> which was submitted to Department for Transport (DfT) in November 2019. This set-out how the delivery of our proposed schemes across four cross-cutting themes would improve sustainable transport in Central Leicestershire and meet both the TCF and local objectives of strengthening the economy, supporting growth, reducing harmful emissions and carbon.

Since being awarded the funds the City Council has been developing a design and delivery programme that will meet the ambitious TCF delivery targets as well as ensuring that traffic is effectively managed during the construction phases with diversionary and alternative arrangements in place. Due to the COVID pandemic, this programme has had to include the additional pressures of delivering Emergency Active Travel schemes that support social distancing as well as accelerating some elements on the TCF schemes to provide improved infrastructure for walkers and cyclists.

Given the importance placed by Government in delivering infrastructure within the originally agreed funding window, it has been necessary to adjust the phasing of scheme delivery in order to minimise traffic management issues and bring forward schemes that were originally scheduled for later in the programme. This has resulted in certain elements being moved between schemes to make delivery more efficient. In addition, it has been necessary to split a number of the schemes into smaller work packages which are designed and delivered in phases. This allows us to complete the detailed design and undertake the necessary consultations whilst following appropriate procurement processes. This is being effectively managed and tracked by the programme manager in order to ensure the programme is delivered to time and budget.

This Business Case presents the case for delivering the CC3 Smart Integrated Ticketing scheme.

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<sup>1</sup> *Connected Leicester – Hub and Spoke Plan, Submitted to DfT November 2019*

## Declarations

### Senior Responsible Owner Declaration

As Senior Responsible Owner for this scheme I hereby submit this request for approval to TCF Board on behalf of Leicester City Council and confirm that I have the necessary authority to do so.

The scheme has been developed in accordance with the TCF Local Assurance Framework , the scheme outputs meet the strategic objectives of TCF and Local Transport Plan and costs are within the TCF programme budget..

I confirm that Leicester City Council will have all the necessary resources in place to manage the delivery of the programme and that statutory powers are in place to ensure the planned timescales in the scheme can be realised.

That a Monitoring and Evaluation Programme has been approved inline with the requirements of the Local Assurance Framework and the TCF National Evaluation Programme

Name: Andrew L Smith

Signed:

Position:

Director of Planning, Development & Transportation



### D2. Declaration of a Senior Finance Officer

I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that Leicester City Council

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution;
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties;
- accepts responsibility for meeting any ongoing revenue and capital requirements in relation to the scheme;
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested and that no DfT funding will be provided after 2022/23;

Name:

Colin Sharpe

Signed:



## Executive Summary

**Scheme Name** CC3 Smart Integrated Ticketing

### Costs and Funding:

£	2020/21	2021/22	2022/23	TOTAL
<b>Total scheme cost:</b>	<b>65,000</b>	<b>485,000</b>	<b>625,000</b>	<b>1,175,000</b>
DfT (TCF) funding contribution:	65,000	385,000	379,000	829,000
Local public sector contribution:			146,000	146,000
private contribution:		100,000	100,000	200,000

### Project Description

In order to introduce automated digital payments, this project seeks to develop an integrated digital contactless payment system across both commercial and contracted bus services. The use of digital payments will allow the fare paid each day, for a single or multiple bus journeys, to be capped at a best fare price irrespective of whether the passenger uses the of services from a single bus operator or multiple bus operators .. This particular scheme is pivotal in reducing one of the key barriers to travel which is the cost and uncertainty of using a bus. Tap -in and Tap-out provide passengers with the confidence to use the bus without knowing ticket types and fares, operator names or even the 'names' of the stop.

The Multi-operator capping will, in addition, assist in integrating the services from the various operators into a cohesive network in which passengers can board and exit buses without a concern that it is the wrong operator, or they have the wrong ticket. This will facilitate the use of the bus for cross-city movements using multiple services which would also include the Park and Ride services. One of the main aims of the project is to speed up boarding times on all bus services by removing the driver interactions as far as possible and appropriate, including cash transactions, which can lead to delays.

This project will lay the foundations for wider area future integration across/beyond the conurbation with rail and longer distance bus services and the project will directly support and enhance the outcomes of all bus projects within the overall TCF programme.

The project is estimated to produce a **BCR of 3.63**. This is classified as a **High** Value for Money and is expected to produce a benefit of £3.63 for every £1 invested.

A series of sensitivity tests including an 'impact of COVID' which assumed that bus patronage only returned to 80% of pre-covid levels all returned a BCR>2

The outcomes are anticipated to be:

- **Journey times savings** for existing travellers through the faster boarding times. This is estimated to be around 442,549 hours per year.
- **Increased bus patronage** by reducing barriers to travel for new passengers by providing a simple tap-on and tap-off experience whereby they do not need to know complex ticketing structures, nor worry which operator to use. This will benefit those that want to

switch to using buses, visitors to the city and ad-hoc users. The scheme is anticipated to increase patronage by around 1.6% based upon DfT's 2009 business case for investment in smart ticketing nationally. In Leicester this amounts to an additional 412,227 boardings per year on top of the existing 25 million.

- **Reduced operating costs** to the bus companies through reduced cash handling and reduced bus journey times. The cash handling is estimated to save £108,281 per year, whilst 2,068 bus operating hours are saved.

## Value For Money Statement

The Central BCR is estimated at 3.63 with PVB at £2.5M, PVC at £0.69M and NPV at £1.8M in 2010 prices. This is classified as a High Value for Money.

The BCR is determined from monetised benefits only and has not been adjusted to account for non-monetised benefits.

Monetised benefits are:

- Journey times savings for existing travellers through the faster boarding times.
- Increased bus patronage by reducing barriers to travel for new passengers by providing a simple tap-on and tap-off experience whereby they do not need to know complex ticketing structures, nor worry which operator to use. This will benefit those that want to switch to using buses, visitors to the city and ad-hoc users.
- Reduced operating costs to the bus companies through reduced cash handling and reduced bus journey times.

Public sector funds are used to purchase card readers and the systems associated with a single and multi-operator fare capping system. The private sector bus-operators see no net change in operating costs, as increased costs of operating the capping system are balanced against the reduced cash handling and reduced bus operating times.

A series of sensitivity tests have been undertaken to determine the benefits of the scheme under a number of alternative scenarios, including the situation in which the passenger number only return to 80% of their original level post-covid. This is the level to at which bus operators are basing the business plans.

The analysis shows that in all cases the BCR remains above 2 and provides a high BCR in the central case and the following sensitivity tests:

- **central case**, based upon pre-covid assumptions (1.6% increase in passenger)
- **following COVID** where it is assumed that bus passenger numbers will return to 80% of pre-covid levels in a do-nothing scenario. This is the level that bus companies are planning for.
- **Central case with 0% passenger growth**. This assumes that the scheme does not attract any new patronage, but only benefits existing users through reduced journey times.
- **Central case with 2% growth**. This assumes the scheme is better at attracting new passengers.
- **Central case with Optimism bias at 20%**. Whilst costs are expected to be robust, this variation in optimism bias allows for a 20% over-estimation.